

POSITION TITLE:     ENGINEERING SPECIALIST III -  
                                 Mechanical

DEPARTMENT: Facilities Division

CERTIFICATION: I certify that, to my knowledge, this is an accurate and complete description of the essential functions and the conditions required for this position.

DATE: 11/18/2021

POSITION #: 022538

Performs complex engineering work. Work involves collecting and validating engineering and environmental data; planning and design functions; conducting inspections and materials research and testing; and construction or fabrication work. Works under general supervision with moderate latitude for the use of initiative and independent judgment.

- A. Conducts engineering fieldwork, materials research, and testing activities; and collects and samples field data for engineering and environmental projects and analyzes and validates data.
- B. Prepares specifications and draws plans using computer-aided design (CAD) equipment for engineering design applications; provides engineering consultation services; investigates complaints; and prepares correspondence and technical reports.
- C. Performs engineering and environmental assessments of the conditions for all buildings to include inspection of heating, ventilation, air conditioning, and ducting systems; and develops preliminary designs of potable water systems, chilled water systems, and heating and cooling systems.
- D. Prepares plans, specifications, estimates, and related documents for compliance with laws and standards and makes recommendations for improvements; and calculates hydraulics for water quantities, flow rates for chilled and hot water cooling and heating, and quantity estimates for labor, materials, and equipment costs.
- E. Assists licensed engineers with the development and oversight of field testing.

\* Performs a variety of marginal duties not listed, to be determined and assigned as needed.

## TEXAS DEPARTMENT OF CRIMINAL JUSTICE JOB DESCRIPTION

POSITION TITLE: ENGINEERING SPECIALIST III -  
Mechanical

SALARY GROUP: B19

DEPARTMENT: Facilities Division

Page 2 of 3

### III. MINIMUM QUALIFICATIONS

### A. Education, Experience, and Training

1. Graduation from an accredited senior high school or equivalent or GED.
2. Seven years full-time, wage-earning maintenance, construction, or project scope experience. Thirty semester hours from a college or university accredited by an organization recognized by the Council for Higher Education Accreditation (CHEA) or by the United States Department of Education (USDE) may be substituted for each year of experience on a year-for-year basis

or

Bachelor's degree in Mechanical Engineering or Construction Management.

3. Computer operations experience preferred.
4. Computer-aided drafting (CAD) experience preferred.

## B. Knowledge and Skills

1. Knowledge of maintenance and construction engineering techniques and theories.
2. Knowledge of project scope techniques and procedures.
3. Knowledge of agency and departmental organizational structure, policies, procedures, rules, and regulations preferred.
4. Skill to read and interpret construction plans, working plans, drawings, and specifications.
5. Skill to communicate ideas and instructions clearly and concisely.
6. Skill to coordinate with other staff, departments, officials, agencies, organizations, and the public.
7. Skill in the use of computers and related equipment in a stand-alone or local area network environment.
8. Skill to review technical data and prepare technical reports.
9. Skill to apply engineering concepts, conduct inspections, and perform design work.
10. Skill in the use of computer-aided design (CAD) equipment and in the use and maintenance of scientific instruments preferred.

**TEXAS DEPARTMENT OF CRIMINAL JUSTICE  
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Page 3 of 3

**IV. ADDITIONAL REQUIREMENTS WITH OR WITHOUT REASONABLE ACCOMMODATION**

- A. Ability to walk, stand, sit, kneel, push, stoop, crawl, twist, reach above the shoulder, grasp, pull, bend repeatedly, climb stairs and ladders, identify colors, hear with aid, see, write, count, read, speak, analyze, alphabetize, lift and carry under 15 lbs., perceive depth, operate a motor vehicle, and operate motor equipment.
- B. Conditions include working inside and outside, working around machines with moving parts and moving objects, working around moving objects or vehicles, radiant and electrical energy, working closely with others, working alone, working protracted or irregular hours, working on ladders or scaffolding, and traveling by car, van, bus, and airplane.
- C. Equipment (machines, tools, devices) used in performing only the essential functions include computer and related equipment, calculator, copier, fax machine, telephone, portable electrical and electronic test equipment, CAD equipment, dolly, and automobile.